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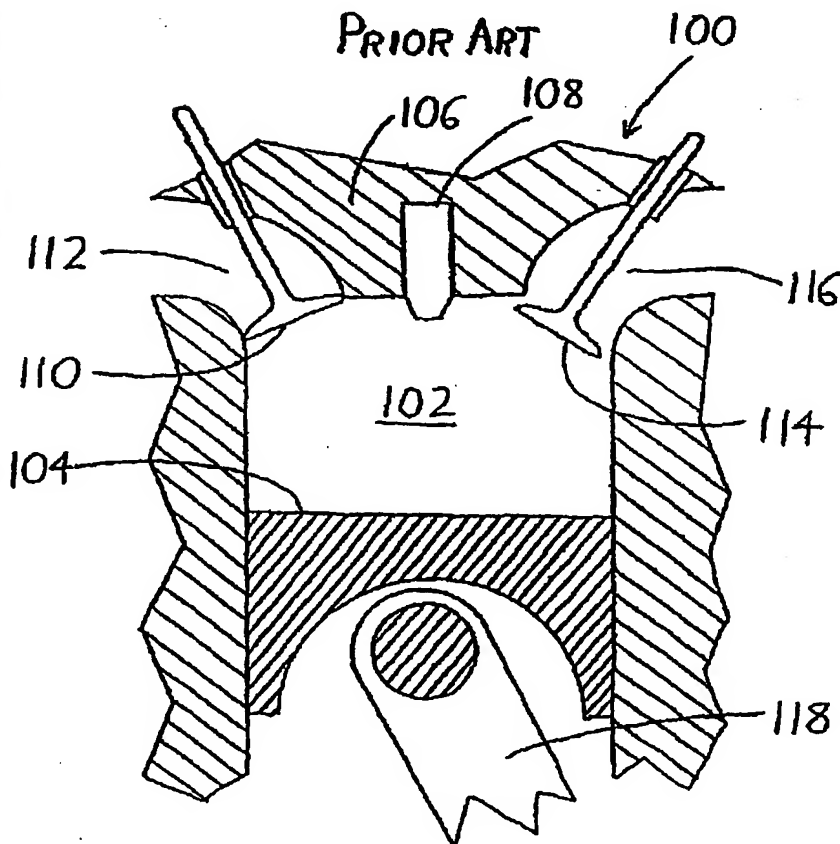
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(54) Title: ENGINE VALVE ACTUATION FOR COMBUSTION ENHANCEMENT



(57) Abstract: A combustion chamber valve, such as an intake valve or an exhaust valve, is briefly opened during the compression and/or power strokes of a 4-stroke combustion cycle in an internal combustion engine (in particular, a diesel or CI engine). The brief opening may (1) enhance mixing with the combustion chamber, allowing more complete oxidation of particulates to decrease engine emissions; and/or may (2) delay ignition until a more desirable time, potentially allowing a means of timing ignition in otherwise difficult-to-control conditions, e.g., in HCCI (Homogeneous Charge Compression Ignition) conditions.

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